

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
Makiko FLISS et al) Group Art Unit: TBA
Serial No. TBA) Examiner: TBA
Filed: even herewith)) Atty. Dkt. No. 001107.00357

For: MITOCHONDRIAL DOSIMETER

PRELIMINARY AMENDMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Please enter the following amendments before examining the application referenced above. We believe no fee is due in connection with this filing. If a fee is due, please charge Deposit Account No. 19-0733.

Amendments to the Claims

1-38. (Cancelled)

39. (Original) An oligonucleotide probe comprising a sequence of at least 10 contiguous nucleotides of a human mitochondrial genome, wherein the oligonucleotide comprises a mutation selected from the group consisting of: a mutation selected from the group consisting of: T→C at nucleotide 114; ΔC at nucleotide 302; C→A at nucleotide 386; insert T at nucleotide 16189; A→C at nucleotide 16265; A→T at nucleotide 16532; C→T at nucleotide 150; T→C at nucleotide 195; ΔC at nucleotide 302; C→A at nucleotide 16183; C→T at nucleotide 16187; T→C at nucleotide 16519; G→A at nucleotide 16380; G→A at nucleotide 75; insert C at nucleotide 302; insert C→G at nucleotide 514; T→C at nucleotide 16172; C→T at nucleotide 16292; A→G at nucleotide 16300; A→G at nucleotide 10792; C→T at nucleotide 10793; C→T at nucleotide 10822; A→G at nucleotide 10978; A→G at nucleotide 11065; G→A at nucleotide 11518; C→T at nucleotide 12049; T→C at nucleotide 10966; G→A at nucleotide 11150; G→A at nucleotide 2056; T→C at nucleotide 2445; T→C at nucleotide 2664; T→C at nucleotide 10071; T→C at nucleotide 10321; T→C at nucleotide 12519; Δ 7 amino acids at nucleotide 15642; G→A at nucleotide 5521; G→A at nucleotide 12345; G→A at nucleotide 3054; T→C substitution at position 710; T→C substitution at position 1738; T→C substitution at position 3308; G→A substitution at position 8009; G→A substitution at position 14985; T→C substitution at position 15572; G→A substitution at position 9949; T→C substitution at position 10563; G→A substitution at position 6264; A insertion at position 12418; T→C substitution at position 1967; and T→A substitution at position 2299.

40. (Original) An oligonucleotide primer comprising a sequence of at least 10 contiguous nucleotides of a human mitochondrial genome, wherein the oligonucleotide comprises a mutation selected from the group consisting of: a mutation selected from the group consisting of: T→C at nucleotide 114; ΔC at nucleotide 302; C→A at nucleotide 386; insert T at nucleotide 16189; A→C at nucleotide 16265; A→T at nucleotide 16532; C→T at nucleotide 150; T→C at nucleotide 195; ΔC at nucleotide 302; C→A at nucleotide 16183; C→T at nucleotide 16187; T→C at nucleotide 16519; G→A at nucleotide 16380; G→A at nucleotide 75; insert C at nucleotide 302; insert C→G at nucleotide 514; T→C at nucleotide 16172; C→T at nucleotide

Amendments to the Specification

(1) Replace the paragraph at page 1, lines 2-5, with the following paragraph:

This application is a divisional of copending application Serial Number 09/525,906 filed
March 15, 2000, which is a continuation-in-part of application Serial No. 09/377,856, filed
August 20, 1999, now issued as U.S. Patent No. 6,344,322, which claims priority to provisional
application Serial No. 60/097,307 filed August 20, 1998, abandoned. The disclosure of these
prior applications is expressly incorporated herein.

Remarks

No new matter is introduced by these amendments. Their entry is respectfully requested.

Respectfully submitted,

Date: June 24, 2003

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16292; A→G at nucleotide 16300; A→G at nucleotide 10792; C→T at nucleotide 10793; C→T at nucleotide 10822; A→G at nucleotide 10978; A→G at nucleotide 11065; G→A at nucleotide 11518; C→T at nucleotide 12049; T→C at nucleotide 10966; G→A at nucleotide 11150; G→A at nucleotide 2056; T→C at nucleotide 2445; T→C at nucleotide 2664; T→C at nucleotide 10071; T→C at nucleotide 10321; T→C at nucleotide 12519; Δ 7 amino acids at nucleotide 15642; G→A at nucleotide 5521; G→A at nucleotide 12345; G→A at nucleotide 3054; T→C substitution at position 710; T→C substitution at position 1738; T→C substitution at position 3308; G→A substitution at position 8009; G→A substitution at position 14985; T→C substitution at position 15572; G→A substitution at position 9949; T→C substitution at position 10563; G→A substitution at position 6264; A insertion at position 12418; T→C substitution at position 1967; and T→A substitution at position 2299.

41-59. (Cancelled)

60. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C substitution at position 710.
61. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C substitution at position 1738.
62. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C substitution at position 3308.
63. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a G→A substitution at position 8009.
64. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a G→A substitution at position 14985.
65. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C substitution at position 15572.
66. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a G→A substitution at position 9949.

67. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C substitution at position 10563.

68. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a G→A substitution at position 6264.

69. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is an A insertion at position 12418.

70. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C substitution at position 1967.

71. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→A substitution at position 2299.

72. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C at nucleotide 10071.

73. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C at nucleotide 10321.

74. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C at nucleotide 12519.

75. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a G→A at nucleotide 5521.

76. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a G→A at nucleotide 12345.

77. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C at nucleotide 114.

78. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a ΔC at nucleotide 302.

79. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a C→A at nucleotide 386.

80. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is an insert T at nucleotide 16189.

81. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a A→C at nucleotide 16265.
82. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a A→T at nucleotide 16532.
83. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a C→T at nucleotide 150.
84. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C at nucleotide 195.
85. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a ΔC at nucleotide 302.
86. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a C→A at nucleotide 16183.
87. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a C→T at nucleotide 16187.
88. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C at nucleotide 16519.
89. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a G→A at nucleotide 16380.
90. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a G→A at nucleotide 75
91. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is an insert C at nucleotide 302.
92. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is an insert CG at nucleotide 514.
93. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C at nucleotide 16172.
94. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a C→T at nucleotide 16292.
95. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is an A→G at nucleotide 16300.

96. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is an A→G at nucleotide 10792.

97. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a C→T at nucleotide 10793.

98. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a C→T at nucleotide 10822.

99. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a A→G at nucleotide 10978.

100. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a A→G at nucleotide 11065.

101. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a G→A at nucleotide 11518.

102. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a C→T at nucleotide 12049.

103. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C at nucleotide 10966.

104. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a G→A at nucleotide 11150.

105. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a G→A at nucleotide 2056.

106. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C at nucleotide 2445.

107. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T → C at nucleotide 2664.

108. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C at nucleotide 10071.

109. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C at nucleotide 10321.

110. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a T→C at nucleotide 12519.

111. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a Δ 7 amino acids at nucleotide 15642.

112. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a G→A at nucleotide 5521.

113. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a G→A at nucleotide 12345.

114. (Original) The oligonucleotide probe of claim 39 or primer of claim 40 wherein the mutation is a G→A at nucleotide 3054.

115-117. (Cancelled)